

# MEDDIC-MS Data Book

*Medicaid Encounter Data Driven Improvement Core Measure Set*

## Vol. 2. 2003 HMO Performance Data Medicaid Program Data and BadgerCare Program Data Compared

Wisconsin Department of Health and Family Services  
Division of Health Care Financing, Bureau of Managed Health Care Programs

December 2004



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NOTE: The immunizations for children measure does not appear due to very small numbers of enrollees in BadgerCare meeting the denominator criteria for the measure.

Results on non-clinical performance measures are reported separately in the *"Wisconsin CAHPS® Medicaid/BadgerCare Enrollee Satisfaction Survey Executive Summary Report."*

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## Introduction and Background

MEDDIC-MS (Medicaid Encounter Data Driven Improvement Core Measure Set) is Wisconsin's set of standardized performance measures for Medicaid and BadgerCare (the State Children's Health Insurance Program, SCHIP) managed care. Use of MEDDIC-MS was approved by the Centers for Medicare and Medicaid Services (CMS) as part of its review of the state's quality improvement strategy in August 2003.

In October 2003, the Agency for Healthcare Research and Quality (AHRQ) recognized MEDDIC-MS for inclusion in the National Quality Measures Clearinghouse (NQMC®). To view the measure summaries on the NQMC, go to: <http://www.qualitymeasures.ahrq.gov/resources/measureindex.aspx> and scroll down to "State of Wisconsin."

MEDDIC-MS is a fully automated system, utilizing HMO encounter data and other State-controlled electronic data sources. This significantly reduces costs associated with data acquisition and eliminates data contamination caused by inaccurate patient-supplied history. Medical record review continues to be used for data validity audits, ambulatory quality of care audits, and cases where HMOs wish to augment encounter data and special audit functions.

The Department of Health and Family Services (DHFS) extracts data for each measure and calculates each HMO's performance on the measure through a third party data services vendor. This facilitates greater consistency, completeness and accuracy in calculation of the measures than having each HMO calculate and report its own rates.

MEDDIC-MS includes Targeted Performance Improvement Measure (TPIM) topics that have been in use for a number of years, but the measures are designed to work in the automated encounter data environment. The *monitoring measures* included in MEDDIC-MS are consistent with a number of topics used in the past. They include utilization trending measures as well as clinical outcome measures.

The performance results on these measures for CY 2002 are available on the Wisconsin Medicaid Managed Care Website. To view these reports, please go to: [http://www.dhfs.state.wi.us/medicaid7/reports\\_data/index.htm](http://www.dhfs.state.wi.us/medicaid7/reports_data/index.htm) or <http://www.dhfs.state.wi.us/medicaid7/providers/index.htm> and scroll down to "Provider Quality Reports."

The data in this booklet presents performance rates for all HMOs combined on all MEDDIC-MS performance measures based on CY 2003 data, specific to the Medicaid and BadgerCare populations for easy comparison.

Complete technical specifications for the MEDDIC-MS measures are available upon request. Contact: Gary R. Ilminen, RN at (608) 261-7839 or [ILMINGR@DHFS.STATE.WI.US](mailto:ILMINGR@DHFS.STATE.WI.US) .

### **Care Analysis Projects**

Since 2001, the Department has implemented an innovative program-wide proactive approach to performance improvement called Care Analysis Projects (CAP). Through CAP, enrollee-specific health care needs are identified and the data about those needs are shared with the enrollee's HMO. In this way, the Department seeks to assist in quality improvement by allowing HMOs and providers to focus outreach on individuals with unmet needs.

CAP focuses on several chronic conditions and on the provision of key preventive services. Chronic conditions included are congestive heart failure, asthma, and diabetes. Preventive health services include lead screening and prenatal risk assessment.

MEDDIC-MS and CAP work together. CAP provides data-driven targeted intervention and MEDDIC-MS allows accurate, data-driven performance assessment.

### **HMO Performance Improvement Projects**

Since the early 1990's the HMO contract has required HMOs to complete at least two performance improvement projects in each calendar year and submit reports about them to the Department annually. Analysis of those reports revealed that between 1997 and 2000, 73 percent of HMO interventions on topics of performance improvement projects resulted in some degree of improvement.

### **Medicaid and BadgerCare Programs serve different populations**

BadgerCare is a health insurance program for low-income families with children. Low-income families who are not eligible for Medicaid because their income is too high qualify for BadgerCare if family income is at or below 185 percent of the federal poverty level (FPL). Eligibility continues until income exceeds 200 percent of the FPL. Younger children of families on BadgerCare are enrolled in Medicaid, while older siblings and parents are in BadgerCare. This fact affects the size of the denominator on measures applicable to young children.

Other volumes in the MEDDIC-MS 2003 Data Book include:

Volume1--2003 HMO Aggregate Performance Data, Wisconsin Medicaid and BadgerCare Programs. This volume provides overall performance data for all HMOs combined and the Medicaid and BadgerCare programs combined.

Volume 3--2003 HMO-specific Performance Data, Wisconsin Medicaid and BadgerCare Programs. This volume provides performance data on each measure on an HMO-by-HMO basis.

These reports are available at the Wisconsin Medicaid Managed Care website noted above.

## Results on Clinical Performance Measures



## Asthma care

### *Monitoring measure*

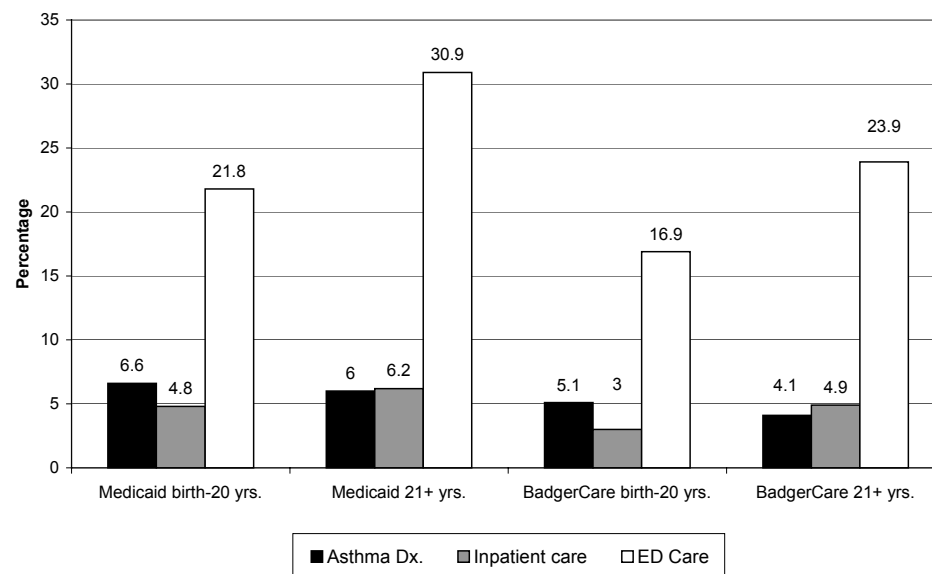
Asthma is a chronic respiratory condition affecting the lungs. People with asthma suffer episodes where airflow in and out of the lungs is reduced by constriction of the airways in the lungs and by excess mucous. Between 12 and 15 million Americans have asthma, including nearly 5 million children.

Episodes of asthma can be reduced with effective management and patient education. For these reasons, early diagnosis, patient/parent education and medical management are crucial to prevention of exacerbation and maintenance of good quality of life.

Prevalence--the percentage of enrollees with the diagnosis of asthma--was slightly higher among Medicaid enrollees than among BadgerCare enrollees. Similarly, use of inpatient care for the diagnosis of asthma was also somewhat higher in Medicaid than in BadgerCare. Emergency department/room (ED or ER) care for asthma was also used more frequently by Medicaid enrollees than BadgerCare enrollees. Each of these is consistent with results in 2002.

Quality improvement activities in asthma care have included a number of interventions. For example, 9 of 13 HMOs responding to a recent survey of participating Medicaid/BadgerCare HMOs indicated that they had asthma disease management programs. In addition, 7 of 13 HMOs have conducted performance improvement projects on asthma care since 2000. The Department of Health and Family Services has operated a Care Analysis Project on asthma since 2001.

Asthma--Prevalence, Inpatient and ED care by age cohort, Medicaid and BadgerCare, 2003



## Blood lead toxicity screening

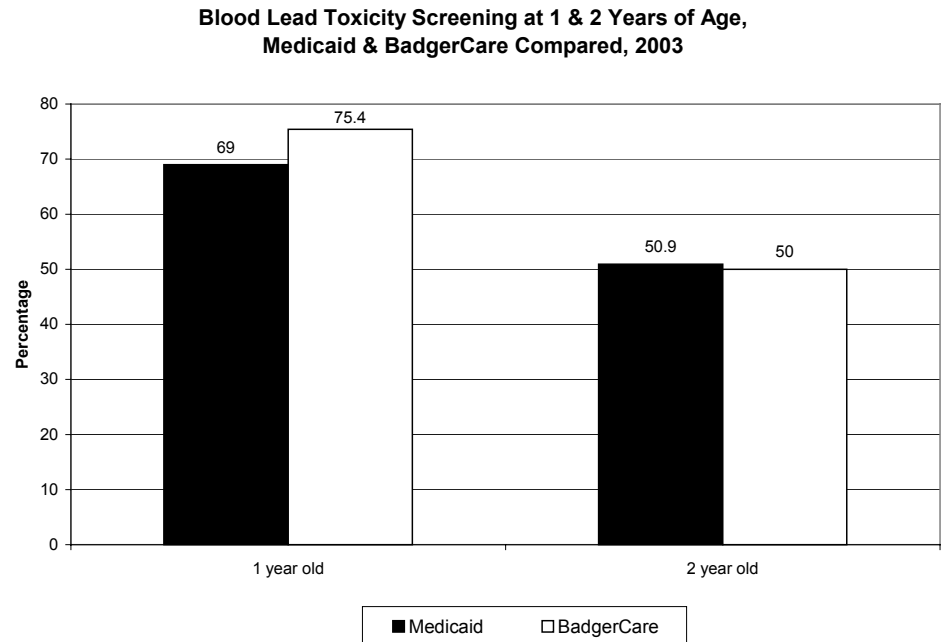
*Targeted performance improvement measure*

Children in Medicaid and BadgerCare are considered to be at risk for exposure to sources of lead poisoning in their living environment. For this reason, provision of blood lead toxicity testing is required for children at age one and two years and up to age six if elevated levels or risk factors have been identified.

In the Wisconsin Medicaid & BadgerCare HMO program, blood lead toxicity screening at age one and two years is required under the contract and is a Targeted Performance Improvement Measure in the MEDDIC-MS performance measure system.

Blood lead toxicity screening rates in BadgerCare were higher for one-year-old children than in Medicaid, but the difference in screening rates were nearly identical for two-year-old children. Overall screening rates for one-year-old children have increased nearly ten percent since 2000, while the rates for two-year-old children has remained stable.

In 2001, the Department instituted the Care Analysis Project (CAP) on blood lead toxicity screening, whereby recipient-specific lead testing data is shared with the child's HMO in an effort to assist HMOs with identification of children in need of lead screening. This facilitates outreach and follow-up for children who have not received screening. In addition, 5 of 13 HMOs have conducted performance improvement projects on lead screening since 2000.



## Dental (preventive) services

*Targeted performance improvement measure*

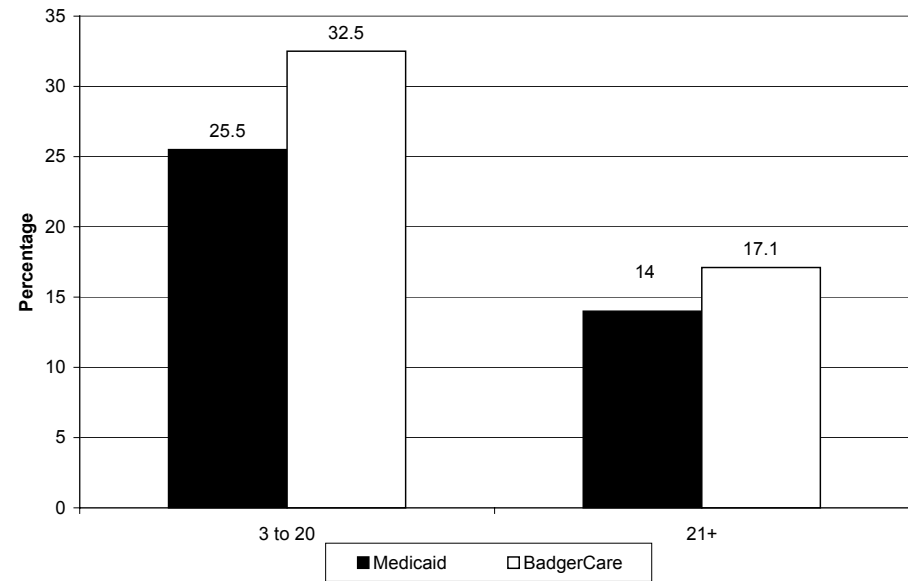
Preventive dental services include initial and comprehensive dental examinations, prophylaxis, topical application of fluoride and application of sealants.

Dental care can prevent development of dental caries, tooth loss, oral infections, abscesses and other problems. Preventive dental services are of particular value soon after the eruption of teeth for in young children. Teeth generally first erupt between age 6 and 28 months and emerge enough to benefit from preventive care between 1 and 3 years.

Three HMOs of 13 participating in Medicaid and BadgerCare offer dental services, primarily in the Milwaukee area. HMO enrollees in the rest of the state receive dental benefits on a fee-for-service basis; but about half of all HMO enrollees receive dental benefits through their HMO.

Access to preventive dental care services through HMOs was higher in BadgerCare for children age 3 to 20 years and the rates were nearly the same in 2003 as in 2002. Access by BadgerCare enrollees was also higher for enrollees over 21 years of age, though by a smaller margin and again, rates were nearly identical to 2002.

Dental (Preventive) Care, Age 3-20 and 21+ Years, Medicaid and BadgerCare Compared, 2003



## Diabetes care

*Targeted performance improvement measure*

Diabetes mellitus is a chronic condition that can cause heart disease, kidney damage and blindness.

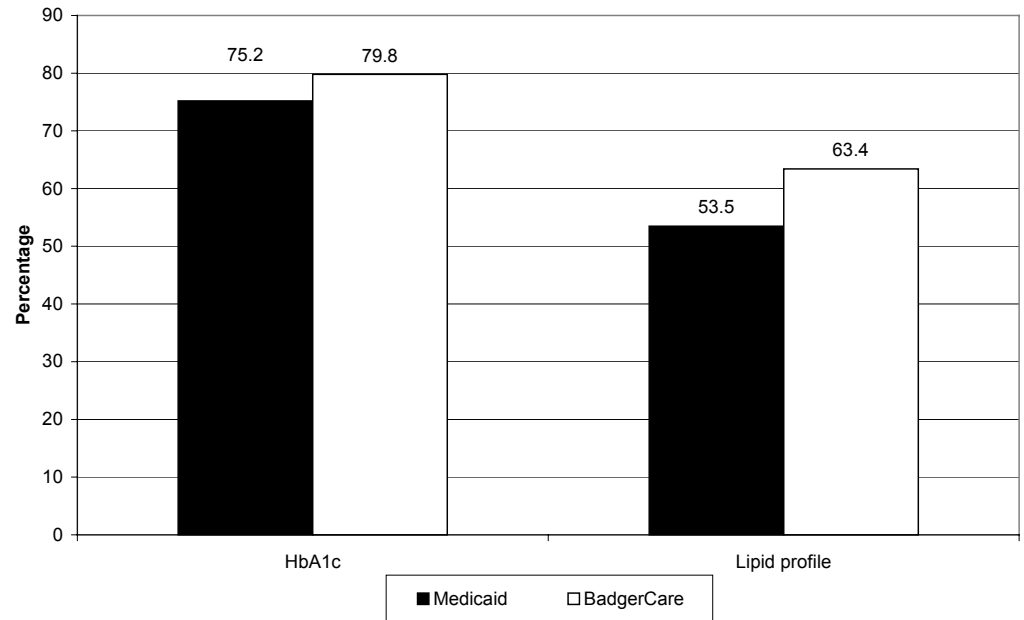
However, serious consequences can be reduced or prevented with proper management. Two important diabetes management tests are monitored in the MEDDIC-MS measure system.

One test is the hemoglobin A1c (HbA1c), which is a blood test that indicates the level of blood sugar control over time. The other test is the lipid profile, which is a blood test that monitors the levels of "fats" (lipids) in the blood stream. The charts reflect the percentage of HMO enrollees diagnosed with diabetes who received the tests in Medicaid compared with BadgerCare.

The HbA1c and lipid profile rates were higher in BadgerCare than in Medicaid.

Seven HMOs have conducted performance improvement projects on diabetes care since CY 2000 and diabetes has been a Care Analysis Project topic since 2001. In addition, 11 of 13 HMOs have disease management programs for diabetes.

Diabetes Care 2003, All Ages, Medicaid & BadgerCare Compared



## EPSDT (HealthCheck) comprehensive well-child exams

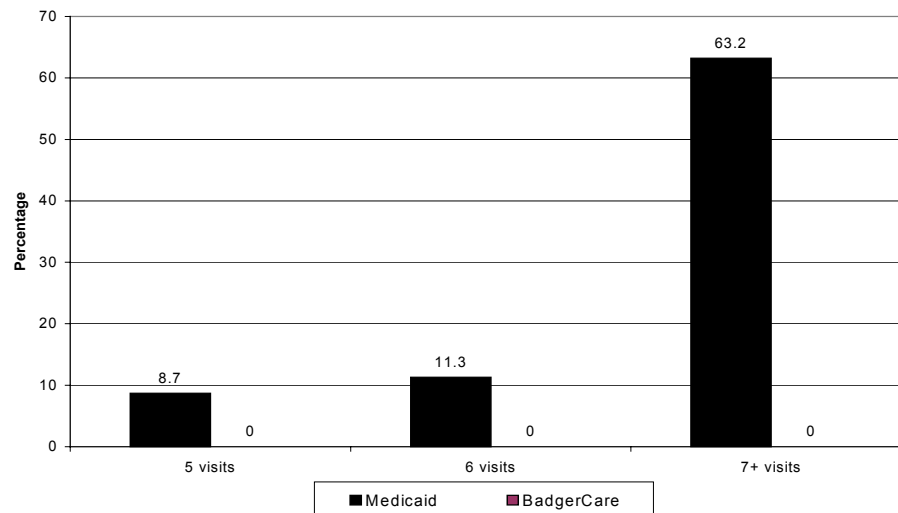
The federal mandate to state Medicaid programs includes provision of Early, Periodic Screening, Diagnosis and Treatment (EPSDT) services for children. Wisconsin's EPSDT services are called HealthCheck screens. HealthChecks include an unclothed physical exam, age appropriate immunizations, lab work, including blood lead toxicity tests, health and developmental history, vision and hearing tests, and oral assessment beginning at age 3.

Nine HealthCheck visits should be provided to each child by age two. The percentage of children receiving 7 or more visits was greater than 63 percent in Medicaid. The overall rate has increased from 45.5 percent in 2000 to 63.2 percent in 2003. Since nearly all children birth to age 2 years of age are in Medicaid, BadgerCare had too few children (<30) in the denominator to measure accurately and so, no value is shown on the chart. Access to at least one EPSDT visit in the measure look-back period (CY 2003) in the older age groups was slightly higher in BadgerCare than in Medicaid, but generally decreased for both programs as children aged, similar to national data trends.

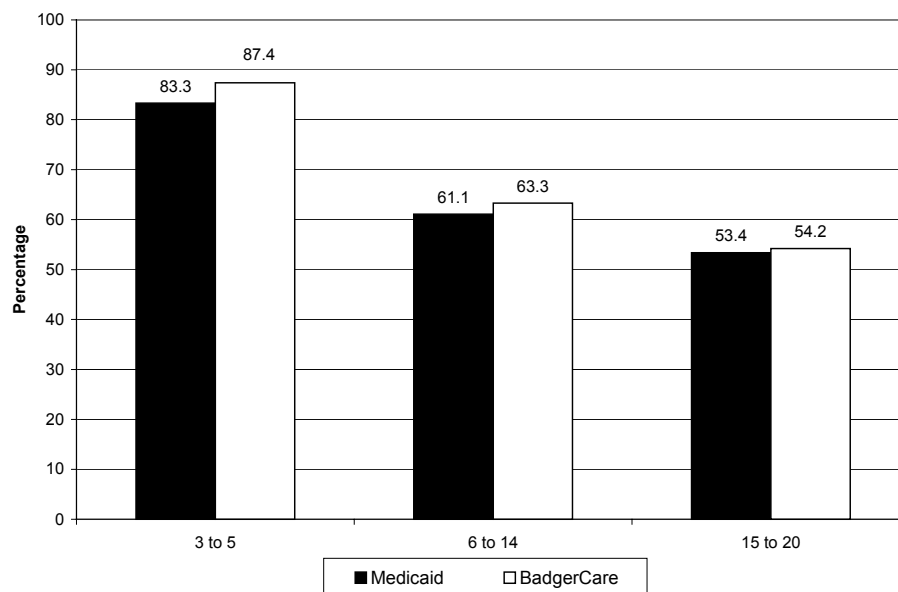
Significant differences in access to HealthCheck services are not evident between Medicaid and BadgerCare.

Ten of thirteen Medicaid/BadgerCare HMOs have conducted performance improvement projects on HealthCheck since 2000.

HealthCheck (EPSDT) Age Birth to 2 Years with 5, 6 or 7 Encounters, Medicaid & BadgerCare Compared, 2003



HealthCheck (EPSDT), Ages 3-20 Years, Medicaid & BadgerCare Compared, 2003



## General and specialty care-outpatient

### *Monitoring measure*

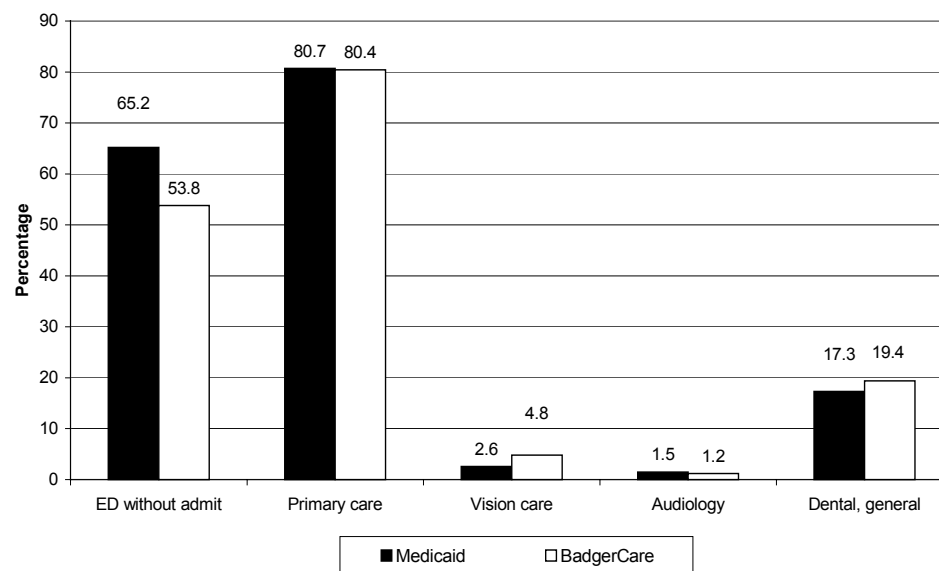
Access to outpatient or ambulatory care for a variety of health care needs is essential for overall health maintenance and improvement.

This measure assesses access to emergency department (ED) care that does not result in subsequent hospitalization, access to primary care, to vision care, audiology services and dental care. The measure tracks what percentage of Medicaid and BadgerCare HMO enrollees of all ages had access to those services on at least one occasion during the look-back period.

Nearly two-thirds of all HMO enrollees in Medicaid had at least one emergency department care encounter that did not result in subsequent hospitalization. In BadgerCare, the rate was just over one half. Primary care access for enrollees was good, with about 8 out of every 10 HMO enrollees in each program having at least one primary care encounter in the look-back period. The percentage of enrollees utilizing vision and hearing services was relatively small in both programs. Use of emergency department care increased significantly in both programs since 2002 when the rate in Medicaid was 36.9 percent and 29.7 percent in BadgerCare. Access to dental care increased significantly from 2002 in both programs as well, when the rate in Medicaid was 2.7 percent and in BadgerCare was 1.7 percent. Rates for primary care, vision and audiology care were about the same.

Three participating HMOs provide dental care under their contract with the Department. See also "Dental (preventive) care" on page 11 for further information.

General & Specialty Care, Outpatient,  
Medicaid & BadgerCare Compared, 2003



## General and specialty care-inpatient

### *Monitoring measure*

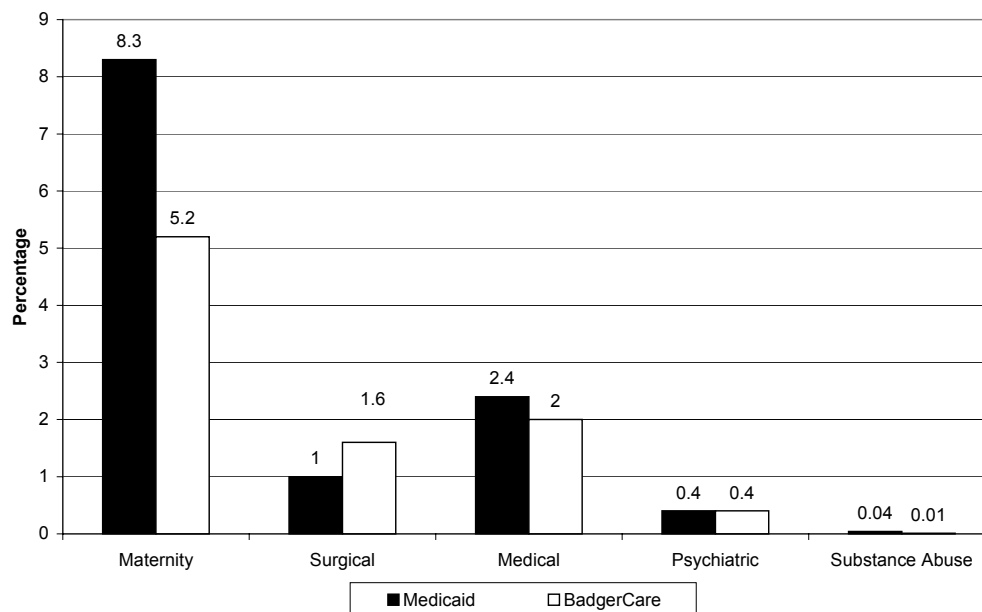
Some conditions may require care or services that cannot be provided on an ambulatory or outpatient basis. Those conditions may require hospitalization, referred to as inpatient care.

Inpatient care may be necessary for many different conditions. For the purposes of the Medicaid/BadgerCare HMO performance monitoring program, five general categories of care are used: maternity, surgery, medical, psychiatric and substance abuse.

This chart compares the use of inpatient care services by HMO enrollees in the Medicaid program with enrollees in the BadgerCare program.

The chart shows that in 2003, use of inpatient maternity care services was somewhat higher in Medicaid than in BadgerCare. The rate in Medicaid increased from 2002, when it was 5.8 percent; the BadgerCare rate was the same in both years. Use of inpatient surgical, psychiatric and substance abuse services were similar in each program, and about the same as in 2002. Inpatient medical care increased by 0.9 percent in Medicaid, 0.5 percent in BadgerCare.

General & Specialty Care, Inpatient, Medicaid & BadgerCare Compared, 2003



## Mammography (screening) and malignancy detection

### *Monitoring measure*

The American Cancer Society and the National Cancer Institute each recommend that women over age 40 have regular screening mammograms.

Mammography is recognized as a highly effective method for early detection of breast cancer.

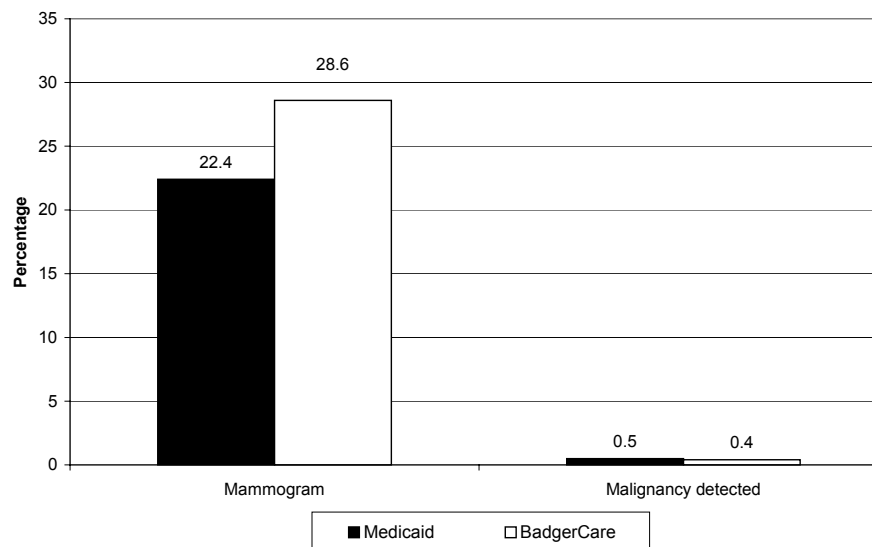
Early detection of breast cancer improves outcomes of treatment and long-term survival.

Though only a small portion of enrollees in Medicaid and BadgerCare are women over age 40, facilitating and tracking the provision of screening mammography is important because of the benefits of early detection and treatment.

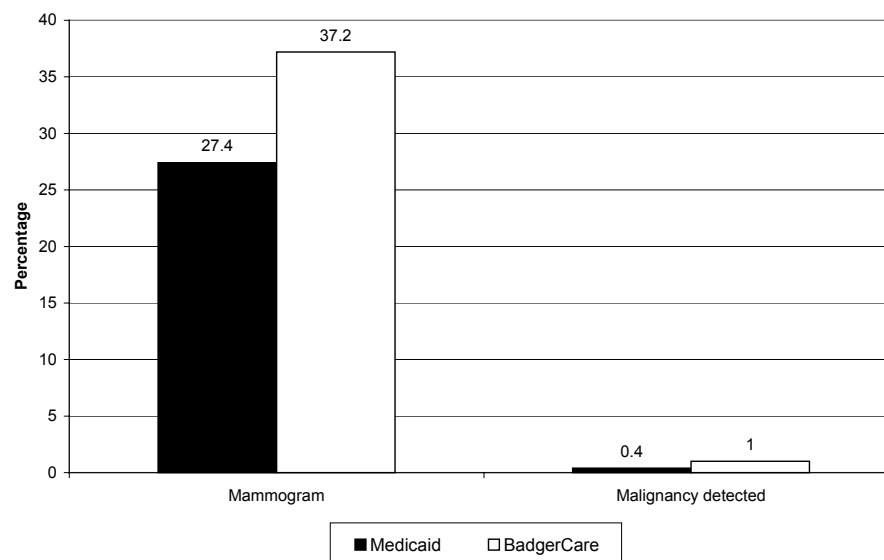
The screening mammography rate for women in BadgerCare was somewhat higher than in Medicaid in 2003. This is consistent with rates in 2002. However, the screening rate for women age 40-49 increased slightly in Medicaid and decreased slightly in BadgerCare.

The outcome measure for this service, detection of breast malignancies, was nearly identical between the two programs in the 40-49 age group, but was higher in the 50+ age group in BadgerCare.

Mammography and Malignancies Detected, Age 40-49, 2003,  
Medicaid & BadgerCare Compared



Mammography & Malignancies Detected, Age 50+, 2003,  
Medicaid and BadgerCare Compared





## Maternity care

### Monitoring measure

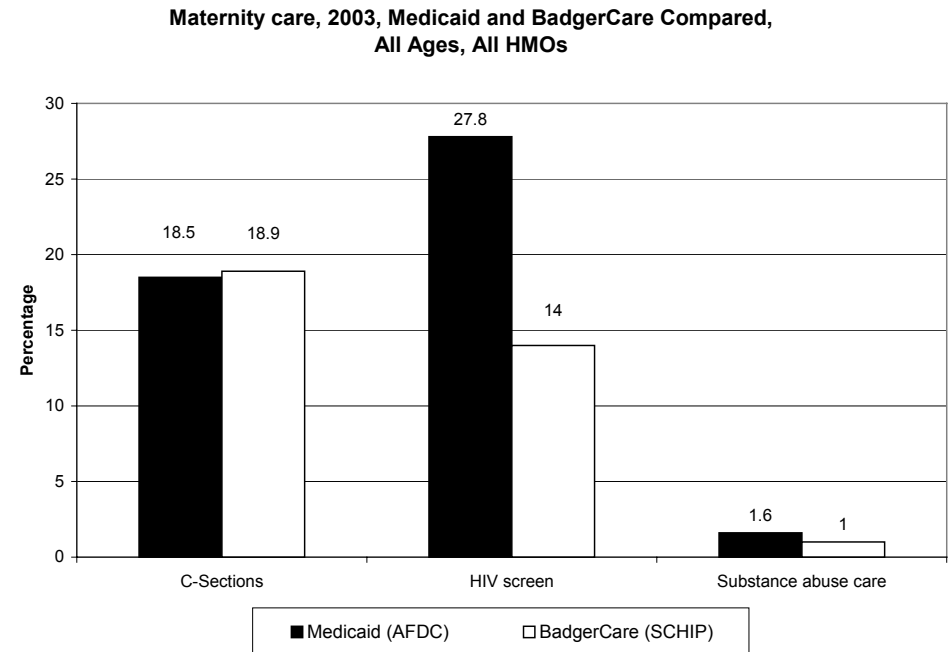
Cesarean section (C-section) childbirth may be the safest form of delivery in certain circumstances. However, since C-sections pose risks of their own, the procedure should be used only when it is truly necessary. For these reasons, and the prevalence of women of child-bearing age in Medicaid/BadgerCare, tracking the use of the procedure is of particular importance.

Provision of other health care services in the perinatal period may be of very high importance to the health of both mother and child. Two such services are provision of substance abuse treatment services and voluntary HIV screening tests. The percentages expressed in the chart are all percentages of the total number of live births during the measure's look-back period, calendar year 2003.

The rate of births by C-section was nearly equal between the Medicaid and BadgerCare programs; 18.5 percent of live births in Medicaid, 18.9 percent in BadgerCare.

The rate of voluntary HIV screening was significantly higher in the Medicaid program at 27.8 percent, while the rate in the BadgerCare program was 14 percent.

Provision of substance abuse care in the perinatal period was nearly equal; 1.0 percent in BadgerCare, 1.6 percent in Medicaid.



# Mental Health/substance abuse (MH/SA) follow-up care within 7 and 30 days of inpatient discharge

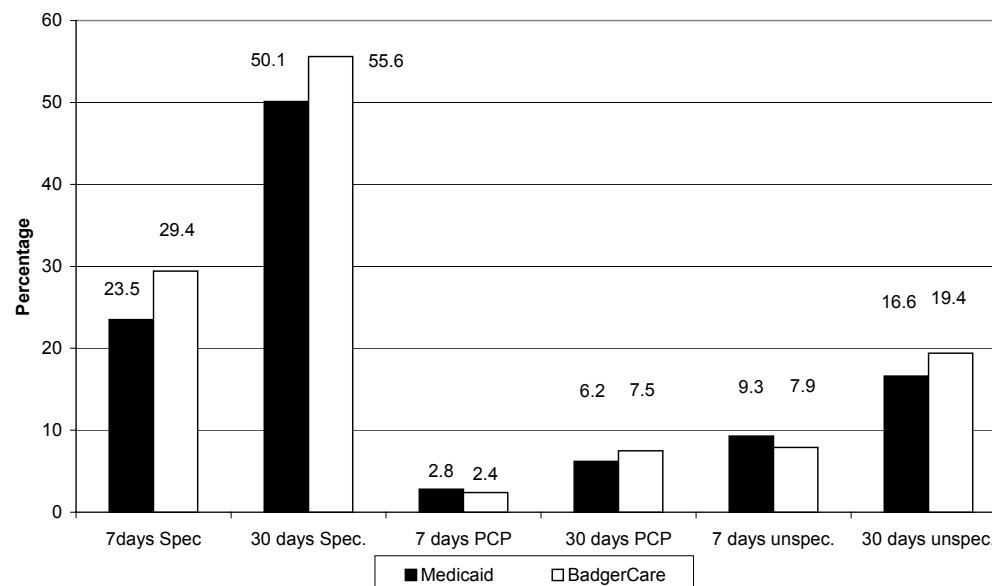
*Targeted Performance Improvement Measure*

Research<sup>1</sup> has shown that follow-up care on an outpatient basis for individuals who have had inpatient care for mental illness or substance abuse is effective in reducing readmission to the inpatient setting for the same diagnosis.

This measure evaluates provision of follow-up care by both specialty and primary care providers (PCP) within 7 days of discharge and within 30 days of discharge from an inpatient setting where care for a mental health or substance abuse diagnosis was provided. It compares the rates of provision of these services to HMO enrollees under the Medicaid program with the rates for enrollees under the BadgerCare program. Since appropriate service codes at times appear on encounter records, but the provider type is not specified, the measure set includes these encounters in the category of "unspecified" to prevent underreporting.

Access to follow-up care at both 7 and 30 days post-discharge by specialists was slightly higher in BadgerCare than it was in Medicaid in 2003. This is consistent with results for 2002. Follow-up care by primary care providers (PCP) was nearly equal at both 7 and 30 days post-discharge.

Mental Health & Substance Abuse Ambulatory Care within 7 & 30 Days after Inpatient Stay by Provider Type, Medicaid & BadgerCare Compared, 2003



<sup>1</sup> *Evaluation and the Health Professions, Special Edition, State Medicaid Quality Programs, "Outpatient Utilization Patterns and Quality Outcomes after First Acute Episode of Mental Health Hospitalization,"* Delmarva Foundation, December 2000.

## Mental health/substance abuse (MH/SA) evaluations and outpatient care

### *Monitoring Measure*

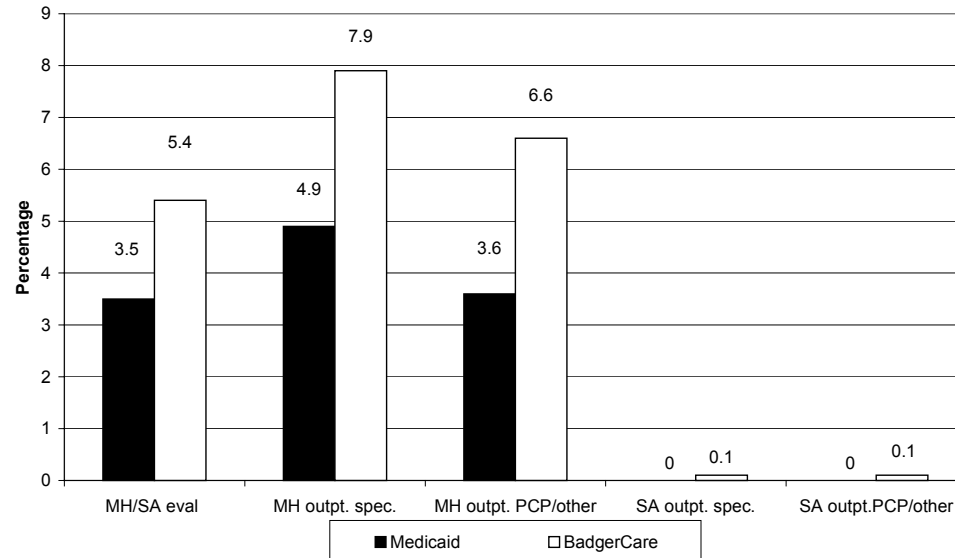
The first step in access to mental health and substance abuse (MH/SA) services is often an evaluation by a specialist in those areas. Day or outpatient treatment is often appropriate. This measure monitors the rate of evaluation and outpatient treatment services.

Tracking the provision of these services by provider type can provide insight into HMO network adequacy. In some cases, it may be necessary for primary care providers (PCP) or physician extenders to provide services, and enrollees may prefer that due to location and trust in the provider.

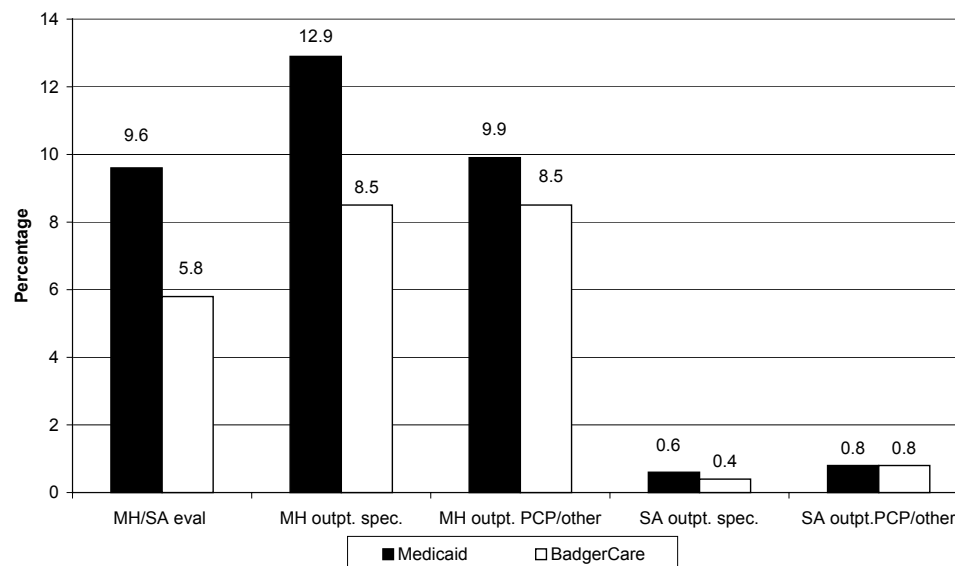
Use of MH/SA evaluations was higher in BadgerCare for enrollees under age 18 years, but lower for enrollees 19 and over. The same pattern was noted in the use of mental health and substance abuse outpatient care by both specialists and primary care providers.

Utilization of substance abuse outpatient care was nearly the same for both age groups in each program. Overall utilization of mental health and substance abuse services increased in both age cohorts and in both Medicaid and BadgerCare from 2002 to 2003.

Mental Health & Substance Abuse--Evaluations & Outpatient care, Specialist/PCP, Age 0-18 years, Medicaid & BadgerCare Compared, 2003



Mental Health & Substance Abuse--Evaluations & Outpatient care, Specialist/PCP, Age 19+ years, Medicaid & BadgerCare Compared, 2003



## Non-HealthCheck well-child care

### Monitoring measure

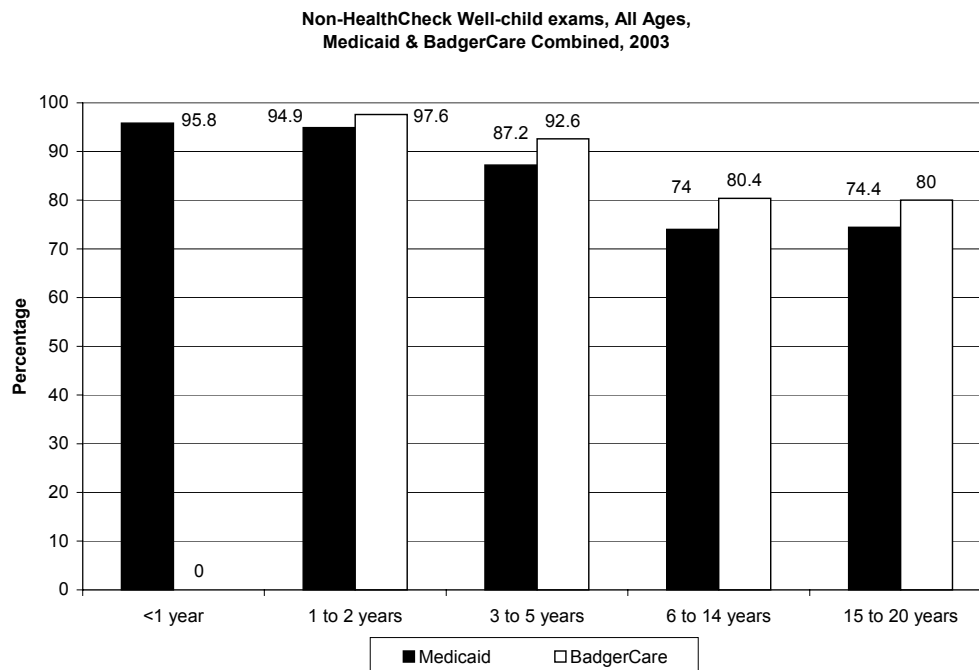
Non-HealthCheck well-child visits are primary care visits that may be too limited in scope to qualify as "HealthCheck visits," but do result in delivery of some preventive or other health services. An example is a postnatal visit for a new mother that is timed to coincide with the due date for immunizations for the child, where the immunizations are given, but may not involve the full HealthCheck exam.

The positive health and economic effects of well-child services, particularly in early childhood have been demonstrated in a recent study.<sup>2</sup>

The study found that states with the highest rates of provision of well-child visits had the lowest rates of preventable hospitalizations for those children. Conversely, states with the lowest rates of well-child care had the highest rates of preventable hospitalizations.

The authors of the study concluded that the "association between preventive care and a reduction in avoidable hospitalizations was robust and was consistent across the states and racial and ethnic groups."

Data for this measure shows that a relatively high percentage of children in both Medicaid and BadgerCare received at least one visit in the look-back period of the measure in each age group. Also, provision of well-child visits was somewhat higher in BadgerCare in each age group. Fewer than 30 children under age 1 year were enrolled in BadgerCare, so no data is shown for that age cohort. For additional information on access to well-child care, see "EPSDT (HealthCheck) Comprehensive well-child exams," on page 14.



<sup>2</sup> *Effectiveness of compliance with pediatric preventive care guidelines among Medicaid beneficiaries.* Hakim RB, Bye BV. July 2001. PEDIATRICS, Vol. 108, No.1:90-97.

## Pap tests-cervical cancer screening

### *Monitoring measure*

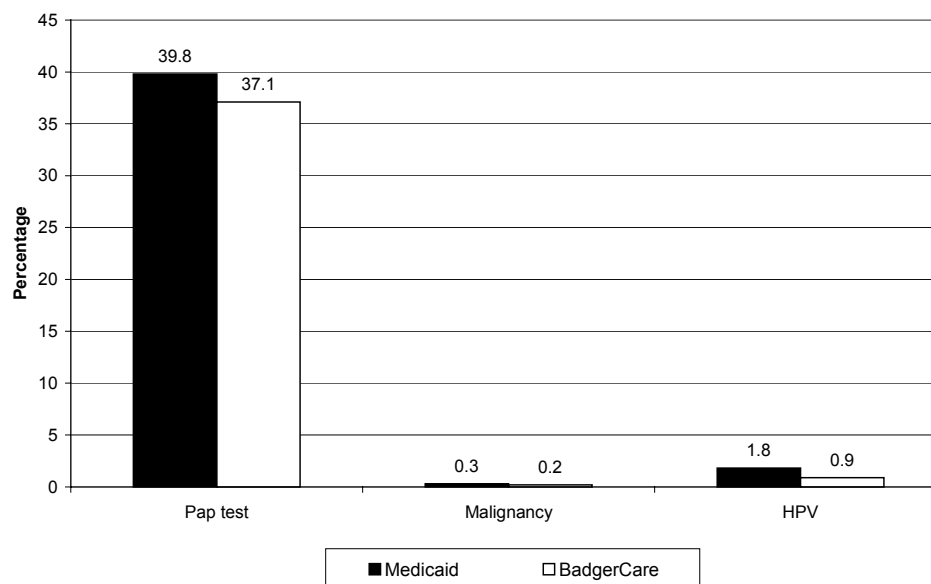
Cervical cancer is diagnosed in approximately 15,000 women in the United States each year. According to the Centers for Disease Control (CDC), cervical cancer remains a leading preventable cause of death among women. Early detection is relatively easy and is the key to a high probability of survival. The most common method for early detection is called the "Pap test."

In addition, human Papillomavirus (HPV) infection is believed to be a causal factor in many cases of cervical cancer. According to the CDC, more than 90 percent of cervical cancers are caused by HPV infections. This measure assesses not only the rate of Pap testing in Medicaid and BadgerCare, but also the detection rates for malignancy and HPV infection.

The Pap test is generally performed every three years, beginning when the woman becomes sexually active or by age 18 years. Thus, the Pap test is not required annually, and the measure is designed to take this into account. This measure monitors the Pap test rate for women aged 18-65 years.

Provision of cervical cancer screening tests (Pap tests) is slightly higher in Medicaid than in BadgerCare for women age 18-65 years. Malignancy detection rates were nearly the same in each program (0.3 and 0.2 percent). The HPV detection rates was slightly higher in the Medicaid program population (1.8 percent) than in BadgerCare (0.9 percent).

Pap Tests, Malignancies and HPV Detected, Age 18-65 years, 2003, Medicaid and BadgerCare Compared



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